

## KEYBOARDS WITH BOTH INDIVIDUAL AND COMBINATION KEY OUTPUT

### ABSTRACT

Methods of providing input feedback in a device having a keyboard with a matrix of independent keys having associated switches arranged in rows and columns, wherein combinations of diagonally adjacent keys are associated with combination key outputs, and devices performing such methods. One method includes scanning for activated keys, providing provisional output to a user indicating that the activated key has been registered; continuing to scan the matrix; and, in response to activation of an adjacent key prior to release of the first activated key, providing final output to the user indicating that a combination of the first and adjacent keys has been registered, to the exclusion of the provisional output. Another features driving the rows in adjacent pairs while examining the columns for switch activation; and, in response to detecting switch activation in two adjacent columns while driving the rows in adjacent pairs, determining a combination key output.

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